

ABSTRACT

The present invention is generally directed to a tool for obtaining downhole measurements and methods of using such a tool. In one illustrative embodiment the tool comprises a body, at least one strain gauge cavity in the body, the strain gauge cavity having a strain gauge mounting surface that is located at a position such that a region of approximately zero strain due to at least one downhole operating condition exists on the mounting surface when the tool is subjected to downhole operating conditions, and a strain gauge operatively coupled to the mounting face above the region of approximately zero strain. In another illustrative embodiment, the method comprises providing a measurement tool comprised of a body, at least one strain gauge cavity in the body, the strain gauge cavity having a strain gauge mounting surface that is located at a position such that a region of approximately zero strain due to at least one downhole operating condition exists on the mounting surface when the tool is subjected to downhole operating conditions, and a strain gauge coupled to the mounting face above the region of approximately zero strain. The method further comprises positioning the tool in a subterranean well bore and obtaining measurement data using the strain gauge in the tool.